Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A color image processing method for converting a first color signal including three variables into a second color signal including N variables, where N is an integer, which is not smaller than five, the second color signal to be output to an image forming device which executes a print process with N colors, the color image processing method comprising:

a first conversion of determining (N-3) variables of the second color signal from the first color signal; ~~and~~

a second conversion of determining the remaining three variables of the second color signal on the basis of the determined (N-3) variables of the second color signal and the three variables of the first color signal so that the second color signal is colorimetrically equal to the first color ~~signal.~~signal; and

outputting, as the second color signal, the determined (N-3) variables and the determined remaining three variables to the image forming device,

wherein the first conversion of determining determines the (N-3) variables before the remaining three variables of the second color signal are determined, the (N-3) variables being determined on the basis of a UCR ratio of each of the (N-3) variables and a maximum value of each of the (N-3) variables, such that a color represented by a combination of the (N-3) variables is within a color gamut of the image forming device.

2. (Original) The color image processing method according to claim 1, wherein:

the second conversion includes solving a function of the second color signal, which indicates a relation between the second color signal and a device-independent color signal on

color system coordinates corresponding to the second color signal, with using the first color signal and the determined (N-3) variables of the second color signal as an input.

3. (Previously Presented) The color image processing method according to claim 1, wherein:

$5 \leq N \leq 7$, and

the N variables of the second color signal include:

four variables indicating yellow, magenta, cyan, and black; and

at least one variable indicating one of red, green, and blue.

4. (Previously Presented) The color image processing method according to claim 1, wherein:

$5 \leq N \leq 7$;

the (N-3) variables of the second color signal determined in the first conversion include:

a variable indicating black; and

at least one variable indicating one of red, green, and blue; and

the three variables determined in the second conversion indicate yellow, magenta, and cyan.

5. (Previously Presented) The color image processing method according to claim 1, wherein:

the first conversion includes:

determining a UCR ratio concerning the (N-3) variables of the second color signal on the basis of the first color signal;

determining maximum and minimum values of each of the (N-3) variables of the second color signal, which are within a color gamut, on the basis of the first color signal; and

determining the (N-3) variables of the second color signal to be between the maximum and minimum values on the basis of the UCR ratio concerning the (N-3) variables of the second color signal and the maximum and minimum values.

6. (Previously Presented) The color image processing method according to claim 1, wherein:

the first conversion includes:

determining a UCR ratio concerning an achromatic component, a UCR ratio concerning a chromatic component, and three primary color signals, which represent the first color signal, on the basis of the first color signal; and

performing a UCR processing on the basis of the UCR ratio concerning the achromatic component, and the UCR ratio concerning the chromatic component to eliminate the achromatic component and the chromatic component from the three primary color signals, to thereby determine the (N-3) variables of the second color signal.

7. (Original) The color image processing method according to claim 6, wherein the three primary color signals indicate yellow, magenta, and cyan.

8. (Original) The color image processing method according to claim 1, wherein the first color signal is a L*a*b* color signal.

9. (Currently Amended) A color image processing apparatus for converting a first color signal including three variables into a second color signal including N variables, where N is an integer, which is not smaller than five, the second color signal to be output to an image forming device which executes a print process with N colors, the color image processing apparatus comprising:

a first conversion unit ~~for determining~~ that determines (N-3) variables of the second color signal from the first color signal; ~~and~~

a second conversion unit ~~for determining~~ that determines the remaining three variables of the second color signal on the basis of the determined (N-3) variables of the second color signal and the three variables of the first color signal so that the second color signal is colorimetrically equal to the first color ~~signal.~~signal; and

an output section that outputs, as the second color signal, the determined (N-3) variables and the determined remaining three variables to the image forming device,

wherein the first conversion unit determines the (N-3) variables before the remaining three variables of the second color signal are determined, the (N-3) variables being determined on the basis of a UCR ratio of each of the (N-3) variables and a maximum value of each of the (N-3) variables, such that a color represented by a combination of the (N-3) variables is within a color gamut of the image forming device.

10. (Original) The color image processing method according to claim 9, wherein: the second conversion unit solves a function of the second color signal, which indicates a relation between the second color signal and a device-independent color signal on color system coordinates corresponding to the second color signal, using the first color signal and the determined (N-3) variables of the second color signal as an input.

11. (Previously Presented) The color image processing apparatus according to claim 9, wherein:

$5 \leq N \leq 7$, and

the N variables of the second color signal include:

four variables indicating yellow, magenta, cyan, and black; and

at least one of variable indicating one of red, green, and blue.

12. (Previously Presented) The color image processing apparatus according to claim 9, wherein:

$5 \leq N \leq 7$;

the (N-3) variables of the second color signal determined by the first conversion unit include:

a variable indicating black; and

at least one variable indicating one of red, green, and blue; and

the three variables determined by the second conversion unit indicate yellow, magenta, and cyan.

13. (Previously Presented) The color image processing apparatus according to claim 9, wherein:

the first conversion unit:

determines a UCR ratio concerning the (N-3) variables of the second color signal on the basis of the first color signal;

determines maximum and minimum values of each of the (N-3) variables of the second color signal, which are within a color gamut, on the basis of the first color signal; and

determines the (N-3) variables of the second color signal to be between the maximum and minimum values on the basis of the UCR ratio concerning the (N-3) variables of the second color signal and the maximum and minimum values.

14. (Previously Presented) The color image processing apparatus according to claim 9, wherein:

the first conversion unit:

determines a UCR ratio concerning an achromatic component, a UCR ratio concerning a chromatic component, and three primary color signals, which represent the first color signal, on the basis of the first color signal; and

performs a UCR processing on the basis of the UCR ratio concerning the achromatic component and the UCR ratio concerning the chromatic component to eliminate

the achromatic component and the chromatic component from the three primary color signals, to thereby determine the (N-3) variables of the second color signal.

15. (Original) The color image processing apparatus according to claim 14, wherein the three primary color signals indicate yellow, magenta, and cyan.

16. (Original) The color image processing apparatus according to claim 9, wherein the first color signal is an L*a*b* color signal.

17. (Currently Amended) A method for producing a direct look-up table used in converting a first color signal including three variables into a second color signal including N variables, where N is an integer, which is not smaller than five, the second color signal to be output to an image forming device which executes a print process with N colors, the method comprising:

preparing a plurality of first color signals;

determining (N-3) variables of each of second color ~~signal~~ signals from ~~each~~ the corresponding first color signal;

determining the remaining three variables of each second color signal on the basis of the determined (N-3) variables of each second color signal and ~~each~~ the three variables of the corresponding first color signal so that each second color signal is colorimetrically equal to ~~each~~ the corresponding first color signal; ~~and~~

forming the direct look-up table using corresponding pairs of the first color signals and the determined second color ~~signals.~~signals; and

outputting, as each second color signal, the determined (N-3) variables and the determined remaining three variables to the image forming device,

wherein the determining (N-3) variables determines the (N-3) variables before the remaining three variables of each second color signal are determined, the (N-3) variables being determined on the basis of a UCR ratio of each of the (N-3) variables and a maximum

value of each of the (N-3) variables, such that a color represented by a combination of the (N-3) variables is within a color gamut of the image forming device.

18. (Currently Amended) A color image processing program causing a computer to perform a process for converting a first color signal including three variables into a second color signal including N variables, where N is an integer, which is not smaller than five, the second color signal to be output to an image forming device which executes a print process with N colors, the process comprising:

a first conversion of determining (N-3) variables of the second color signal from the first color signal; ~~and~~

a second conversion of determining the remaining three variables of the second color signal on the basis of the determined (N-3) variables of the second color signal and the three variables of the first color signal so that the second color signal is colorimetrically equal to the first color ~~signal.~~signal; and

outputting, as the second color signal, the determined (N-3) variables and the determined remaining three variables to the image forming device,

wherein the first conversion of determining determines the (N-3) variables before the remaining three variables of the second color signal are determined, the (N-3) variables being determined on the basis of a UCR ratio of each of the (N-3) variables and a maximum value of each of the (N-3) variables, such that a color represented by a combination of the (N-3) variables is within a color gamut of the image forming device.

19. (Currently Amended) A computer-readable recording medium storing a color image processing program causing a computer to perform a process for converting a first color signal including three variables into a second color signal including N variables, where N is an integer, which is not smaller than five, the second color signal to be output to an image forming device which executes a print process with N colors, the process comprising:

a first conversion of determining (N-3) variables of the second color signal from the first color signal; ~~and~~

a second conversion of determining the remaining three variables of the second color signal on the basis of the determined (N-3) variables of the second color signal and the three variables of the first color signal so that the second color signal is colorimetrically equal to the first color ~~signal.~~signal; and

outputting, as the second color signal, the determined (N-3) variables and the determined remaining three variables to the image forming device,

wherein the first conversion of determining determines the (N-3) variables before the remaining three variables of the second color signal are determined, the (N-3) variables being determined on the basis of a UCR ratio of each of the (N-3) variables and a maximum value of each of the (N-3) variables, such that a color represented by a combination of the (N-3) variables is within a color gamut of the image forming device.